

February 9, 2004



U.S. Department
of Transportation

400 Seventh Street, S.W.
Washington, D.C. 20590

**Research and
Special Programs
Administration**

DOT-E 13182

EXPIRATION DATE: November 30, 2005

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Cytec Industries Inc.
West Paterson, NJ
2. PURPOSE AND LIMITATION:
 - a. This exemption authorizes the transportation in commerce of phosphine in certain DOT specification and non-DOT specification cylinders. This exemption provides no relief from the Hazardous Materials Regulation (HMR) other than as specifically stated herein.
 - b. The safety analyses performed in development of this exemption only considered the hazards and risks associated with transportation in commerce. The safety analyses did not consider the hazards and risks associated with consumer use or other uses not associated with transportation in commerce.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR §§ 173.192(a) and 173.304(b) in that the prescribed DOT and non-DOT specification foreign cylinders authorized herein are to be charged for import and export; and the cylinders may be liquid full with phosphine at temperatures below 130°F.

5. BASIS: This exemption is based on the application of Cytec Industries Incorporated dated November 22, 2002 and supplemental information dated January 6, and September 25, 2003, submitted in accordance with § 107.105 and the public proceeding thereon.
6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Proper Shipping Name/ Hazardous Materials Description	Hazard Class/ Division	Identi- fication Number	Packing Group
Phosphine	2.3	UN2199	N/A Zone A

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Packagings prescribed are:

(1) DOT specification 3A, 3AA and 3AL cylinders with a minimum marked service pressure of 1800 psig (124 bar).

(2) Non-DOT specification seamless aluminum cylinders with a marked test pressure of 300 bar (4,500 psig) manufactured by Luxfer Gas Cylinders (Nottingham, England). Cylinders must be in conformance with Luxfer Gas Cylinders drawing numbers NM20EEC, NM40EEC, and NM50EEC on file with the Office of Hazardous Materials Exemptions and Approvals. The cylinders must be tested and re-qualified by a DOT approved facility and in accordance with the ultrasonic examination (UE) method described in latest revision of ISO 6406.

b. OPERATIONAL CONTROLS -

(1) The maximum permitted fill density is 37 percent. Fill density is defined as the percent ratio of the weight of the gas in a cylinder to the weight of the water that the cylinder will hold at 60°F.

(2) The pressure in the cylinder may not exceed 95 percent of the cylinders test pressure at 65°C (149°F).

(3) The critical temperature (T_c) of phosphine must be above 15°C (59°F) and below 65°C (149°F).

(4) Pressure relief devices are prohibited.

(5) The shipping paper must identify the cylinders with the exemption number "DOT-E 13182". Additionally, when offered for export, the shipping papers must carry the following certification: "This cylinder has [These cylinders have] been retested and refilled in accordance with DOT requirements for export and the terms of this exemption."

(6) Emergency response information provided with the shipment and available via an emergency response telephone number must indicate that the cylinders are not fitted with pressure relief devices and provide appropriate guidance for exposure to fire.

8. SPECIAL PROVISIONS:

a. A current copy of this exemption must be maintained at each facility where the package is offered or reoffered for transportation.

b. Each cylinder must be plainly and durably marked "DOT-E 13182" as specified in § 172.301(c).

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle and Cargo Vessel.

10. MODAL REQUIREMENTS: A current copy of this exemption must be carried aboard each motor vehicle or cargo vessel used to transport packages covered by this exemption.

11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this exemption and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:

- o All terms and conditions prescribed in this exemption and the Hazardous Materials Regulations, 49 CFR Parts 171-180.

- o Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this exemption must receive training on the requirements and conditions of this exemption in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this exemption, including display of its number, when this exemption has expired or is otherwise no longer in effect.

12. REPORTING REQUIREMENTS: The carrier is required to report any incident involving loss of packaging contents or packaging failure to the Associate Administrator for Hazardous Materials Safety (AAHMS) as soon as practicable. (Sections 171.15 and 171.16 apply to any activity undertaken under the authority of this exemption.) In addition, the holder(s) of this exemption must inform the AAHMS, in writing, of any incident involving the package and shipments made under the terms of this exemption.

Issued in Washington, D.C.:



for Robert A. McGuire
Associate Administrator for
Hazardous Materials Safety

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Research and Special Programs Administration, Department of Transportation, Washington, D.C. 20590. Attention: DHM-31.

Copies of this exemption may be obtained by accessing the Hazardous Materials Safety Homepage at <http://hazmat.dot.gov/exemptions> Photo reproductions and legible reductions of this exemption are permitted. Any alteration of this exemption is prohibited.

PO: MMToughiry